



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/773,843

02/06/2004

Neil Duncan Hunt

56055-0024

8524

29989

7590

12/03/2008

HICKMAN PALERMO TRUONG & BECKER, LLP
2055 GATEWAY PLACE
SUITE 550
SAN JOSE, CA 95110

EXAMINER

ZURITA, JAMES H

ART UNIT

PAPER NUMBER

3625

MAIL DATE

DELIVERY MODE

12/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/773,843	Applicant(s) HUNT ET AL.	
	Examiner JAMES ZURITA	Art Unit 3625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7- 12, 14-39, 41-66, 68-87, and 110-112 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7- 12, 14-39, 41-66, 68-87, and 110-112 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 22 August 2008 has been entered.

Response to Amendment

On 22 August 2008, applicant amended claims 7, 34 and 61, and added claims 110-112.

Claims 7- 12, 14-39, 41-66, 68-87, and 110-112 are pending.

Response to Arguments

Applicant's arguments filed 08/22/2008 have been fully considered but they are not persuasive.

Applicant argues

Claim 7 is directed to a method for estimating how a particular user would rate a particular item, where the particular item has not yet been rated by the particular user. In other words, Claim 7 is directed to generating an estimated rating for an unrated item (the particular item is unrated by the particular user, though it may have been rated by users other than the particular user).

In response, the Examiner notes that the

In response to applicant's arguments, the recitation "...that the particular user has not yet rated..." has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 7- 12, 14-39, 41-66, 68-87, and 110-112 are rejected under 35 U.S.C. 101 because the claims are directed to non-statutory subject matter. Based on Supreme Court precedence see *Diamond v Diehr* 450 US 175,184 (1981); *Parker v. Flook*, 437 US 584,588,n. 9 (1978); *Gottschalk v Benson*, 409 US 63, 70 (1972); *Cochrane v Deener*, 94 US 780, 787-88 (1876) a 101 process must (1) be tied to another statutory class (such as an apparatus) or transform underlying subject matter (such as an article or materials) to a different state or thing.

Claim 7 fails to meet these requirements and is rejected as being directed to non-statutory subject matter. Although the preamble recites machine-implemented, the body of the claim is not tied to the preamble.

Claim 34 includes a carrier wave (specification, paragraphs 0111-0116).

Claim 61 is an apparatus but is written in a Beauregard format and includes a carrier wave.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 7-12, 14-39, 41-66, 68-87 and 110-112, as interpreted, are rejected under 35 U.S.C. 102(e) as being anticipated by Linden (US 6,266,649).

As per claim 7 Linden discloses a machine-implemented method for estimating how a particular user would rate a particular item from a plurality of items, that the particular user has not yet rated (Col. 7, lines 42-55) the method comprising the machine-implemented steps of:

identifying [item(s)] one or more items from the plurality of items that have ratings similar to the particular item; Col. 1, lines 42-56.

identifying [user(s)] one or more other users that have given ratings to the one or more items that are substantially similar to ratings given by the particular user to the one or more items (Col. 8, lines 35-49); and

generating an estimation of how the particular user would rate the particular item based upon ratings for the particular item given by the one or more other users. Col. 2, lines 33-44.

As per claim 8, Linden discloses that identifying [item(s)] is performed off-line in advance of the other steps. Col. 2, lines 57-67.

As per claim 9, Linden discloses that identifying [item(s)] includes calculating a statistical correlation between the particular item and the other items from the plurality of items. Col. 13, lines 45-53.

...further comprising the step of

As per claim 10, Linden discloses a step of determining whether the particular item and each of the one or more items have at least a specified number of co-ratings. Col. 9, lines 34-53.

As per claim 11, Linden discloses a step of determining whether the particular item and one of the one or more items have at least a specified fraction of co-ratings between the particular item and the one of the one or more items divided by the number of ratings of either the particular item or the one of the one or more items. Col. 14, lines 43-63.

As per claim 12, Linden discloses that identifying [item(s)] includes identifying whether the particular item and the one or more items have a number of co-raters greater than a specified fraction of a statistically expected number, given the number of ratings of each item counted separately. Col. 2, lines 57-65.

As per claim 14, Linden discloses that identifying [item(s)] includes consideration of one or more of

a statistical correlation between the particular item and the one or more items, (Col. 13, lines 47-53), whether the particular item and the one or more items have at

Art Unit: 3625

least a specified number of co-ratings, whether the particular item and the one or more items have at least a specified fraction of co-ratings, and whether the particular item and the one or more items have at least a specified fraction of the statistically expected number of co-ratings.

As per claim 15, Linden discloses a step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having at least a specified minimum number of ratings. Col. 14, lines 34-43.

As per claim 16, Linden discloses a step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having less than a specified maximum number of ratings. Col. 14, lines 48-67.

As per claim 17, Linden discloses a step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having an average rating within a specified range. Col. 16, lines 6-22.

As per claim 18, Linden discloses a step of selecting the one or more other users from a plurality of other users based upon each of the one or more other Users having a rating distribution within a specified tolerance of a Normal distribution.

As per claim 19, Linden discloses a step of selecting the one or more other users from a plurality of other users based upon each of the one or more other users having a rating standard deviation within a specified range. Col. 15, lines 25-42.

Identifying other user(s)

As per claim 20, Linden discloses that identifying [user(s)] includes consideration of one or more of whether the one or more other users have at least a specified

Art Unit: 3625

minimum number of co-ratings, (as in community of users, e.g., Col. 1, lines 42-56); whether the one or more other users have less than a specified maximum number of ratings, whether the one or more other users have an average rating within a specified range, whether the one or more other users have a rating distribution within a specified tolerance of a Normal distribution, and whether the one or more other users have a rating standard deviation within a specified range.

As per claim 21, Linden discloses that identifying [other user(s)] includes choosing the one or more other users for whom a statistical correlation with the particular user of co-ratings of the one or more items is greater than a specified threshold. Col. 2, lines 33-44; Col. 10, lines 37-46.

As per claim 22, Linden discloses that identifying [other user(s)] includes choosing the one or more other users for whom a vector cosine distance of co-ratings of the one or more items is smaller than a specified threshold. Col. 9, lines 53-62.

As per claim 23, Linden discloses that identifying [other user(s)] includes choosing the one or more other users who have co-rated a subset of the one or more items exactly the same as the particular user. Col. 5, lines 48-56.

As per claim 24, Linden discloses that identifying [other user(s)] includes choosing the one or more other users who have rated co-rated a subset of the one or more items within a specified threshold of the ratings by the particular user. Col. 9, lines 16-34.

As per claim 25, Linden discloses that identifying [other user(s)] includes consideration of one or more of whether the one or more users have a correlation of co-

Art Unit: 3625

ratings of the one or more items greater than a specified threshold (Col. 12, lines 37-43); whether the one or more users have a vector cosine distance of co-ratings of the one or more items smaller than a specified threshold; whether the one or more users have co-rated a subset of the one or more items exactly the same, and whether the one or more users having co-rated a subset of the one or more items within a specified threshold of the ratings by the particular user.

As per claim 26, Linden discloses that identifying [other user(s)] includes choosing a specified number of other users most similar to the particular user. Col. 1, lines 42-56.

As per claim 27, Linden discloses that identifying [other user(s)] includes choosing other users whose similarity to the particular user is better than a specified threshold. Col. 2, lines 57-Co1.3, line 5.

As per claim 28, Linden discloses that identifying [other user(s)] includes choosing up to a specified number of other users most similar to the particular user, where all the chosen other users have similarity better than a specified threshold. Col. 3, lines 37-55.

As per claim 29, Linden discloses that generating an estimation includes determining an average rating of the particular item by the one or more other users. Col. 12, lines 38-44.

As per claim 30, Linden discloses that generating an estimation includes determining an average rating of the particular item by the one or more other users.

As per claim 31, Linden discloses generating, for each of the one or more users, a separate estimation of how the particular user would rate the particular item based upon the rating for the particular item given by each of the one or more other users, and calculating a confidence metric based upon disparities between the separate estimations. Linden, Col. 5, lines 15-25.

As per claim 32, Linden discloses that the plurality of items is a plurality of movies, the one or more items is one or more movies and the particular item is a particular movie. Col. 1, lines 32-41.

As per claim 33, Linden discloses that the plurality of items is a plurality of music items, the one or more items is one or more music items and the particular item is a particular music item. Col. 2, lines 32-56.

As per claim 110, Linden discloses generating an estimation of how the particular user would rate the particular item based upon ratings for the particular item given by the one or more other users includes determining a similarity between the ratings given by the one or more other users to the one or more items and the ratings given by the particular user to the one or more items. Linden, Col. 1, lines 42-55.

Claims 34-39, 41-60 and 111, directed to media, are rejected on the same basis as claims 7-33 and 110.

Claims 61-66, 68-87 and 112, directed to an apparatus, are rejected on the same basis as claims 7-33 and 110.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES ZURITA whose telephone number is (571)272-6766. The examiner can normally be reached on 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Smith can be reached on (571)272-6763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James Zurita/
Primary Examiner
Art Unit 3625
22 November 2008